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STEPHEN D. COAN  
STATE FIRE MARSHAL

### **Memorandum**

**TO:** Heads of Fire Department

**FROM:** Stephen D. Coan  
State Fire Marshal

**DATE:** March 1, 2012

**SUBJECT:** Recent amendment to 527 CMR

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Included please find portions of several regulations that have recently been amended by the Board of Fire Prevention Regulations.

527 CMR 9.00, was amended to strike out certain provisions of the regulation dealing with underground storage tank "operator training requirements" (see changes to s. 9.07 Q, R, S,T,U). This amendment with an effective date of January 6,2012 was necessary as part of an initiative to transfer this regulatory requirement to the Mass DEP.

527 CMR 10.15, was amended with an effective date of January 6, 2012 eliminates a conflict that existed between the current regulation and a recent new law, MGL c. 94, s. 329. The purpose of both the statute and amendment is to reduce the risks associated with fire and explosion associated with the use of certain flammable liquid sealers used for floor refinishing operations. The amendment codifies the new statutory prohibition (MGL c. 94, s. 329) of the use of certain flammable sealers used by commercial wood floor finishing operations.

527 CMR 38.00, is a new regulation with an effective date of January 6, 2012 which creates regulation dealing with the subject matter of movie and television production activities in a more detailed manner. This regulation is filed to coincide with a companion regulation of 780 CMR.

## 527 CMR 9.00: TANKS AND CONTAINERS

## Section

- 9.01: Purpose and Scope
- 9.02: Definitions
- 9.03: Aboveground Storage Tanks Greater Than 10,000 Gallons Capacity or Tanks Storing Combustible Liquids
- 9.04: Aboveground Storage Tanks Equal to or Less Than 10,000 Gallons Capacity For Storing Class I Liquids
- 9.05: Underground Storage Tanks
- 9.06: Waste Oil Storage Tanks
- 9.07: General Provisions
- 9.08: Referenced Publications

9.01: Purpose and Scope

(1) 527 CMR 9.00 shall apply to the design, construction, installation, testing, and maintenance of tanks and containers. The intent is to protect the public safety and welfare from the dangers of fire and/or explosion due to tank or container leakage of flammable and combustible liquids.

(2) Aboveground tanks of more than 10,000 gallons capacity for the storage of any fluid other than water shall be regulated by 527 CMR 9.00 and by 502 CMR 5.00: *Permit Requirements And Annual Inspection Of Aboveground Storage Tanks Or Containers Of More Than Ten Thousand Gallons' Capacity* for the purpose of protecting the public safety and welfare from the dangers of tank failure, rupture, or leakage. In the event of a conflict between 527 CMR 9.00 or any other requirement in 527 CMR or 502 CMR 5.00 or 780 CMR (The State Building Code), the more stringent of the aforementioned regulations shall apply.

(3) 527 CMR 9.00 shall apply to the design, construction, installation, testing and maintenance of tanks storing hazardous substances.

(4) Nothing in 527 CMR 9.00 shall be construed to abrogate the provisions of 780 CMR, The State Building Code, which may contain additional requirements for the design, construction, and installation of aboveground storage tanks.

9.02: Definitions

For the purposes of 527 CMR 9.00, the following terms shall have the meanings assigned to them:

**Abandoned.** in the case of underground storage tanks, shall mean out of service for a continuous period in excess of six months and for a period in excess of 24 months in the case of any aboveground tank of 10,000 gallons capacity or less; and in the case of aboveground storage of any fluid other than water, where a permit is required from the Marshal under provisions of M.G.L. c. 148, § 37, it shall mean out of service for a continuous period in excess of 60 months and it has been deemed to be unsafe and a threat to the public safety by the Head of the Fire Department and by the Department of Fire Services.

**Aboveground Storage Tank.** A horizontal or vertical tank, that is listed and intended for fixed installation, without back fill above or below grade, and is used within the scope of its approval or listing.

**EXCEPTION 1:** Aboveground Storage Tanks regulated by 527 CMR 9.04: *Vaults*, and 502 CMR 5.00: *Permit Requirements And Annual Inspection Of Aboveground Storage Tanks Or Containers Of More Than Ten Thousand Gallons' Capacity* need not meet double-walled tank requirements.

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EXCEPTION 2: Aboveground pressure vessels constructed in accordance with the requirements of the ASME, *Unfired Pressure Vessels Code* and regulated by M.G.L. c. 146 and 527 CMR 9.07(G) shall be exempt from the requirements for vaults or double-walled tanks.

Approved, approved by the State Fire Marshal.

Automatic Line Leak Detector, a device designed to detect product or pressure losses in a pressurized product line of a remote pumping system.

Board, the Board of Fire Prevention Regulations.

Cathodic Protection System, a technique which inhibits the corrosion of a tank or its components either through sacrificial or galvanic anodes or impressed current.

Class A Operator, means the individual or individuals designated by the owner or operator to have primary statutory and regulatory responsibility for the operation and maintenance of the underground storage tank system. The Class A Operator may hold more than one class of operator position.

Class B Operator, means the individual or individuals designated by the owner or operator to implement applicable regulatory requirements and implement the daily aspects of the operation, maintenance, and recordkeeping for the underground storage tank system. The Class B Operator may hold more than one class of operator position.

Class C Operator, means the individual or individuals designated by the owner or operator to have primary responsibility for responding to alarms, emergencies presented by spills or releases, and other problems associated with the operation of the underground storage tank system. The Class C Operator may hold more than one class of operator position.

Combustible Liquid, Any liquid having a flash point at or above 100°F shall be known as a Class II or Class III Liquid. Combustible liquids shall be divided into the following:

Class II: Liquids having flash points at or above 100°F, and below 140°F.

Class IIIA: Liquids having a flash point at or above 140°F, and below 200°F.

Class IIIB: Liquids having a flash point at or above 200°F.

Components, piping, pumps, and other related storing, conveyancing, and dispensing elements which, together with one or more tanks and any cathodic protection or monitoring system, constitute a storage facility.

Consumptive Use, fuel oil used exclusively for area heating and/or the heating of domestic water on the premises where stored.

Corrosion Expert, a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such person shall be accredited or certified as being qualified by the National Association of Corrosion Engineers (NACE) as a Cathodic Protection Specialist or Corrosion Specialist or be a Massachusetts registered professional corrosion engineer. The corrosion expert shall follow applicable NACE criteria.

DEP, The Massachusetts Department of Environmental Protection.

Department, the Department of Fire Services.

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(3) The owner/operator of the underground storage tank(s) subject a delivery prohibition order shall notify the official issuing said order upon correcting the condition(s) specified in 527 CMR 9.07(O)(1)(a) through (d). The issuing official shall, within 24 hours (Saturdays, Sundays, and Holidays excepted) of notification of said corrections shall verify that the corrections have been made. If the conditions have been corrected, the official shall cause the delivery prohibition tag to be removed, and the product supplier notified.

(P) Third-party Inspections.

- (1) Prior to August 8, 2010, and at a minimum once every three years thereafter the owner/operator of every underground storage tank shall at his/her own expense cause said tank(s) and related piping to be inspected by a third-party inspector, as defined in 527 CMR 9.02.
- (2) Effective August 8, 2007, every newly installed underground storage tank and related piping shall be inspected by a third party inspector, as defined in 527 CMR 9.02, at the time installation is completed.
- (3) The Third-party inspectors shall verify that the owner/operator possess the following documents.
  - (a) A current license for the storage of flammable and combustible liquids issued by the local licensing authority under M.G.L. c. 148, § 13, if applicable; and
  - (b) A valid permit issued pursuant to 527 CMR 9.00, to maintain a new or existing underground storage tank facility; and
  - (c) A current, accurate and valid underground storage tank registration form (Form FP-290); and
  - (d) Copies of the manufacturer's operating instructions for all leak detection, tank monitoring and corrosion protection systems; and
  - (e) Current inspection/testing records for all leak detection, tank monitoring and corrosion protection systems; and
  - (f) Evidence of financial responsibility; and
  - (g) Records of any release reporting and investigation; and
  - (h) Permanent or temporary closure records.
- (4) Third-party inspectors shall conduct an inspection of the following underground storage tank system components in accordance with the equipment manufacturers inspection/testing instructions and sound industry practices:
  - (a) Appropriate and operational corrosion protection (if applicable)
  - (b) Overfill prevention in place and operational.
  - (c) Spill prevention in place and operational.
  - (d) Tank and piping release detection is appropriate, in place and operational.
  - (e) Secondary containment is in place (if applicable) and operational.
- (5) The third-party inspector shall record the results of the document verification, and the inspection on a form or in a format approved by the Marshal. This form shall be signed under the pains and penalties of perjury.
- (6) The third-party inspector shall transmit one copy of the inspection form to the Head of the Fire Department and one copy to the Marshal within 14 business days from of the completion of inspection.
- (7) The Head of the Fire Department and the Marshal shall routinely conduct random inspections of facilities that have been inspected by third -party inspectors to ensure integrity of the inspection.
- (8) Nothing contained in 527 CMR 9.07(P) shall be construed to limit the authority of the Marshal, the Head of the Fire Department or their designees from conducting inspections of underground storage tank systems.
- (9) The following facilities shall be exempt from third-party inspection requirements:
  - (a) Farm or residential tanks of 1100 gallons capacity or less used for storing motor fuel for noncommercial purposes.
  - (b) Residential or commercial tanks storing or having stored heating oil (fuel oil) for consumptive use on the premises.
- (10) The Marshal may, after notice and an opportunity for a hearing, suspend or revoke the right of any third-party inspector to conduct inspections required under 527 CMR 9.07(P), if the Marshal determines that any of the following has occurred.
  - (a) An inspection was not conducted under the direct supervision of the third-party inspector submitting the inspection form.

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- (b) third-party inspector is an owner or operator of the underground storage tank, an employee of the owner/operator of the underground storage tank, or a person having daily on-site responsibility of the underground storage tank.
- (c) The third-party inspector submits false or misleading inspection reports.
- (d) The third-party inspector fails to conduct an inspection in accordance with manufacturers inspection and testing instructions, and accepted industry practice.
- (e) For any other reason which reasonably questions the qualifications of said inspector to continue to conduct further inspections.

(Q) Additional Operator Requirements.

- (1) Written operator response guidelines shall include spill reporting procedure, contact phone numbers, malfunctioning equipment notification procedures, and initial mitigation protocol for emergencies.
- (2) Monthly visual inspections meeting the following minimum requirements shall be conducted at all underground storage systems.
  - (a) Inspection shall be conducted by or under the direction of the Class A or B operator.
  - (b) The results of each inspection shall be recorded in a monthly inspection report and be readily available for inspection for a period of no less than three years.
  - (c) The following items shall be inspected and shall be reported on the inspection report as no defect, defect, and how any defect was resolved:
    - 1. Product shear valve properly anchored.
    - 2. Verify the presence each pressure/vacuum vent cap and if the cap is missing, replace the cap.
    - 3. Inspect each spill bucket for the presence of oil, water, or debris, remove and dispose of any motor fuel, water, or debris in accordance with the applicable federal, state, and local requirements, and repair each spill bucket as necessary.
    - 4. Inventory conducted daily, reconciled monthly.
    - 5. Verify that Underground storage tank sumps have been inspected at least semi-annually and that sump sensors are set below the lowest sidewall penetration within each sump.
    - 6. Inspect each motor fuel dispenser hose for tears, leaks, holes, kinks, crimps or defects of any kind and replace as necessary.
    - 7. Inspect each motor fuel dispenser nozzle for leaks, obstruction of vapor recovery holes, or defects of any kind and replace as necessary.
    - 8. Inspect each motor fuel dispenser cabinet interior and dispenser sump for leaking components and the presence of motor fuel, water or debris, remove and dispose of any motor fuel, water or debris in accordance with all applicable federal, state, and local requirements, and repair each component as necessary.
    - 9. Verify that grade level fill covers are tight fitting and properly color-coded.
    - 10. Inspect each automatic tank gauge detector panel for proper operation of product monitoring and leak detection systems and repair or replace components as necessary.
    - 11. Deficiencies discovered during the monthly visual inspection shall be repaired or otherwise corrected within 30 days.
    - 12. The Class B operator shall ensure that the underground storage tank system that will store or dispense product is compatible with the product that will be stored or dispensed.
- (3) Delegation of the responsibilities of 527 CMR 9.07(Q) to designated Class A, B, or C operators shall not relieve the owner or operator from liability for non-compliance with the requirements of 527 CMR 9.07(Q).

9.08: Referenced Publications

Documents or portions thereof that are referenced within 527 CMR 9.00 shall be considered a part of the requirements of 527 CMR 9.00. Refer to 527 CMR 49.00 for a complete listing of all documents referenced in 527 CMR.

REGULATORY AUTHORITY

527 CMR 9.00: M.G.L. c. 22, § 14; c. 22D, § 4; c. 148, §§ 9, 10, 13, 28, 37, 38 and 38E.

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- (5) Use Group I-3 -- Restrained
- (a) Emergency Plan. The administration of every facility shall have in effect and provided to all supervisory personnel written copies of a plan for the protection of all persons in the event of fire and for their evacuation to areas of refuge and from the building when necessary. All employees shall be instructed and drilled with respect to their duties under the plan. The plan shall be coordinated with and reviewed by the head of the fire department.
- (b) Employee Training. Employees shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment. With respect to new staff, such training shall be provided promptly upon entrance on duty. With respect to existing staff, refresher training shall be provided at least annually.
- (c) All building of Use Group I-3, or those portions of buildings having such occupancy, shall be provided with 24 hour staffing. Staff shall be within three floors or 300' horizontal distance of the access door of each resident housing area. In Use Condition III, IV and V as defined in 780 CMR, the arrangement shall be such that the staff involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within two minutes of alarm.
- (d) Notification. Provisions shall be made so that residents in Use Conditions III, IV, and V as defined in 780 CMR can readily notify staff of an emergency.
- (e) Keys. All keys necessary for unlocking doors installed in means of egress shall be individually identified by both touch and sight.
- (6) High Rise Buildings
- (a) General. The owner or other person having charge of buildings identified as high-rise buildings in 780 CMR shall be required to prepare and submit to the head of the fire department for review and approval a fire safety plan and evacuation procedure as set forth in 527 CMR 10.13(6).
- (b) Fire Safety Plan. The fire safety plan shall be distributed to the tenants and building service employees by the owner or agent. Tenants shall distribute to their employees applicable parts of the fire safety plan which affect their action in the event of a fire or emergency.
- (c) Responsibility to Update Fire Safe Plan. It shall be the responsibility of the owner or agent to promptly update the fire safety and evacuation procedures upon changes in occupancy, use or physical arrangement.
- (7) Marking or Identifying Certain Buildings that are Especially Unsafe in the Case of Fire
- (a) Any building determined to be especially unsafe in case of fire, under the provisions of 780 CMR 121.2 shall be identified and caused to be marked by the building official, with the cooperation of the head of the fire department, to indicate the degree of hazard.
- (b) In marking such buildings, the following symbols shall be used:
- This symbol shall mean that interior hazard exists to such a degree that interior operations shall be conducted with extreme caution. This symbol shall not in any way limit the discretion of the on scene Incident Commander in directing operations that the Incident Commander deems necessary.
- This symbol shall mean that exterior or interior hazards exists to such a degree that consideration should be given to conduct operations from the exterior only. This symbol shall not in any way limit the discretion of the on scene Incident Commander in directing operations that the Incident Commander deems necessary.
- (c) Markings shall be applied on the front of the building at or above the second floor level, where practical, between openings such that they are visible from the street. Markings may be applied to the sides or the rear of a building if the head of the fire department deems such placement necessary. Markings shall also be applied in a conspicuous place near every entrance and on penthouses. Markings shall not be applied over doors, windows, or other openings where they may be obscured by smoke or fire.
- (d) Markings shall be a minimum of 24 inches by 24 inches. Markings shall either be on a placard with a reflective background or painted with a reflective paint of contrasting color directly on the surface of the building. Stripes and borders outside of the marking shall be a minimum of two inches wide.
- (e) All markings shall bear a date as to when applied or the date of the most recent inspection.
- (f) Prior to receiving a mark, all buildings shall be inspected thoroughly by the head of the fire department.

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(8) Special Provisions for Certain Places of Worship Which have been Issued a Valid Certificate of Occupancy for Use as a Temporary Overnight Shelter Pursuant to 780 CMR: *The Massachusetts State Building Code*. A place of worship which has been issued a valid Certificate of Occupancy for use as a temporary overnight shelter in accordance with the provisions of 780 CMR: *The Massachusetts State Building Code*, shall not be deemed in violation of the provision of 527 CMR, as a result of such temporary use, as long as the facility meets the following conditions:

(a) The temporary overnight shelter is in possession of a valid Certificate of Occupancy for such temporary use which has been reviewed and approved by the head of the fire department in accordance with 780 CMR.

(b) The approved temporary overnight shelter is used, occupied and operated in accordance with the terms and conditions specified in said Certificate of Occupancy and said certificate of occupancy is posted in a conspicuous location.

(c) In addition to the terms and conditions specified in the Certificate of Occupancy, the following fire safety requirements shall be applicable:

1. The building which houses the approved temporary overnight shelter shall have no known existing or outstanding violations of 527 CMR or M.G.L. c. 148.

2. A copy of the fire safety and evacuation plan, approved in accordance with the provisions of 780 CMR 3111.4.2., shall be kept on the premises and posted near the main entrance. The responsible person(s) identified in the application for the Temporary Certificate of Occupancy shall maintain the condition of the shelter in accordance with the layout contained in the approved fire safety and evacuation plan.

3. The employees, volunteers or attendants of the temporary overnight shelter shall be trained and drilled in the duties that they are to perform in case of fire, panic or other emergency in accordance with the provisions of 527 CMR 10.13(3)(a). During all hours of overnight activation of an approved temporary overnight shelter, employees, volunteers and attendants shall be awake and alert.

Exception: Employees, volunteers and attendants do not need to remain awake if the building is equipped throughout with an interconnected smoke detection and notification system.

4. No person shall be permitted to smoke within the temporary overnight shelter. Smoking may be allowed outside in an area approved by the Head of the Fire Department.

5. A document shall be posted, in a location approved by the Head of the Fire Department, containing an accurate number of sheltered occupants on a nightly basis. Such document shall also contain the names of all workers and volunteers who are overseeing or assisting in the temporary overnight shelter usage on a nightly basis. In the event of an evacuation, a copy of the document shall be in the possession of the person in charge at a designated meeting point.

6. The temporary overnight shelter shall maintain a working landline phone that must be accessible to initiate a call for assistance in the event of an emergency. A cell phone is not acceptable for compliance with this requirement.

7. The use of battery operated smoke alarms and carbon monoxide detectors, as outlined in 527 CMR 10.13(8)(c)7.a. and b. is permissible until April 30, 2012. Effective May 1, 2012 all temporary overnight shelters shall be equipped with monitored and interconnected smoke and carbon monoxide detection system as described in the State Building Code.

a. Carbon monoxide alarms shall be installed in accordance with 527 CMR 31.04(1). For purpose of compliance with 527 CMR 31.04, the dwelling unit of an approved temporary shelter shall be considered that portion of the building used for sleeping purposes.

b. An approved temporary overnight shelter shall feature working and approved smoke detectors in accordance with the requirements of 780 CMR: *The Massachusetts State Building Code*, if applicable. If smoke detectors are not currently required under 780 CMR, the shelter shall, at a minimum, feature approved working smoke detectors in accordance with the provisions of 527 CMR 32.00: *Approved Smoke Detectors*. Such smoke detectors shall be installed in any room or area used for sleeping purposes and in any room or area directly adjacent to said sleeping area.

(d) The head of the Fire Department shall be notified, in writing, at least 48 hours prior to the actual activation of an approved temporary overnight shelter and shall be notified, in writing, upon the termination of such activation.

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(e) As a condition to use and occupation of an approved temporary overnight shelter pursuant to 527 CMR 10.13(8), The operator of any such shelter shall allow the head of the fire department or any person to whom the head of the fire department may delegate, the authority to enter the shelter during any hour of operation to determine compliance with the provisions of 527 CMR or M.G.L. c. 148.

(f) The provisions of 527 CMR 10.13(8) shall not impede the ability of the head of the fire department to take any reasonable action to protect persons or property under the authority of any provision of 527 CMR or M.G.L. c. 148.

10.14: Hazard Abatement in Existing Buildings(1) General.

(a) Scope. The provisions of 527 CMR 10.14 are to provide a reasonable degree of safety to persons occupying existing buildings that do not conform with the minimum requirements of 780 CMR: *The Massachusetts State Building Code* by requiring the following alterations to such existing buildings.

(b) Application of Other Codes. All alterations to an existing building which are caused directly or indirectly by the enforcement of 527 CMR 10.00 shall be done in accordance with the applicable procedures and provisions of 780 CMR: *The Massachusetts State Building Code*, 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*, the BOCA Mechanical Code and 527 CMR 12.00: *Massachusetts Electrical Code*.

(c) Continued Maintenance. All service equipment, means of egress devices and safeguards which are required by 527 CMR 10.00 or which were required by a previous statute or another regulation in a building or structure when erected, altered or repaired shall be maintained in good working order. The requirements of 527 CMR 10.14 are not to provide the basis for removal or abrogation of fire protection and safety systems and devices in existing buildings. These requirements are intended to require that existing buildings which do not comply with 527 CMR 10.00 be altered to provide a minimum level of safety as required herein.

(2) Elevator Recall. Required. Elevator recall shall conform to the requirements of 524 CMR: *Board of Elevator Regulations*.

(3) Mechanical Equipment Control. Smoke and Heat Detection. Each recirculating air system which serves more than one floor in buildings which exceed six stories in height shall be equipped with approved smoke and heat detection devices in accordance with the BOCA Mechanical Code. The devices shall stop the fan(s) automatically and shall be of the manual reset type. Automatic fan shutdown is not required when the system is part of an approved smoke removal or control system, or hazardous exhaust system.

10.15: Floor Finishing or Refinishing

(1) Scope. 527 CMR 10.15 shall apply to persons, or other entities that engage in sanding, finishing, or refinishing wood floors with or without compensation in any building or structure. The equipment, processes and operation of floor finishing or refinishing operations shall also comply with the applicable requirements of 527 CMR 10.00, 527 CMR 14.00: *Flammable and Combustible Liquids, Flammable Solids or Flammable Gases* and 527 CMR 34.00: *Rubbish Handling*.

(2) Purpose. The purpose of 527 CMR 10.15 is to prohibit the use of flammable liquid products during the course of any activity relating to the finishing or refinishing of the surface of wood floors and to provide minimum safety requirements for the sanding or stripping of wood floors located within buildings or structures.

(3) Prohibited Use. No person or entity shall apply or otherwise use any Flammable Floor Finishing Product during the course of any activity relating to the refinishing or finishing of the surface of a wood floor. The provisions of 527 CMR 10.15 shall be in addition to the prohibitions of M.G.L. c. 94, § 329 relating to the sale and use of certain lacquer sealers during the course of commercial wood floor finishing operations.

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Flammable Floor Finishing Product. For the purposes of 527 CMR 10.15, shall mean any clear or pigmented wood finish, formulated with nitrocellulose or synthetic resins to dry by evaporation and without chemical reaction, having a flashpoint below 100°, and having a vapor pressure not exceeding 40psi at 100°F, including clear lacquer sanding sealers.

(4) Fire Safety Requirements. In addition to prohibiting the use of flammable liquids on wood floors as stated above, no person shall sand or strip wood floors where such sanding or stripping would create fine or explosive dust that when dispersed could be ignited in the air without first complying with the following fire/explosion safety requirements. The requirements in 527 CMR 10.15(4)(a), (d) and (e) are not required if approved ventilation or dust collection equipment is used continuously so that the vapors or dust would not be considered ignitable:

(a) Sources of Ignition. All fires, open flames, or other sources of ignition, including smoking materials, spotlights, halogen lights or appliance pilot lights shall be eliminated from the area or unit.

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(b) Electricity. Electrical equipment shall be designed and installed in accordance with 527 CMR 12.00: *Massachusetts Electrical Code*. All power tools on the jobsite shall be properly grounded.

(c) Electrical Permit Required. An electrical permit is required when connecting any floor-refinishing machine directly to the electrical panel in accordance with 527 CMR 12.00: *Massachusetts Electrical Code*.

(d) Warning Signs. Any person or other entity sanding or stripping floors in a building containing more than one dwelling unit shall post suitable warning signs indicating the danger of dust and fire/explosion hazard and shall be conspicuously posted on all doors and entrances to the building and/or unit. Such notice is to be printed in contrasting colors and shall have lettering at least 2" high and should state the name of the operator in charge, the date and time of the operation and the area or unit where work is to be performed. Warning signs shall be posted at least 24 hours prior to engaging in such work.

(e) No Smoking signs, featuring the international pictograph prohibiting smoking, must be posted at all entrances to the house or building before floor sanding or finishing begins and until 24 hours after the end of all floor sanding and finishing activities.

(5) Special Conditions.

Waste Materials. A metal waste-can with a self closing cover shall be provided for all waste materials, including wood dust, and rags. All such materials shall be removed from the building and disposed of daily.

10.16: Dust Explosion Hazards(1) General.

(a) Scope. Equipment, processes and operations which involve dust consisting of pulverized particles of any material which, if mixed with air in the proper proportions, becomes explosive and may be ignited by flame or spark shall comply with the applicable requirements of 527 CMR and the provisions of 527 CMR 10.16, and shall be maintained in accordance with NFPA 61, 65, 68, 69, 85F, 91, 490, 651, 653, 654, and 655 where provisions of 527 CMR 10.16 do not specifically cover conditions and operations.

(b) Permit Required. A permit shall be obtained from the head of the fire department for the operation of any grain bleacher or elevator; flour, starch or feed mill; malt house; wood flour manufacturing plant; or plant pulverizing aluminum, coal, cocoa, magnesium, spices, sugar or other material producing dust as defined in 527 CMR 10.16(1)(a).

(2) Fire Safety Requirements Precautions. Smoking and the carrying of matches, the use of heating or other devices employing an open flame, or use of any spark producing equipment shall be prohibited in areas containing dust producing or dust agitating operations. Artificial lighting in such areas shall be by electricity with all wiring and electrical equipment installed in accordance with 527 CMR 12.00: *Massachusetts Electrical Code*.

10.17: Places of Assembly(1) General.

(a) Scope. The decoration, operation or use of places of assembly and education shall comply with the applicable requirements of 527 CMR 10.00 and 21.00: *Decorations, Curtains, Draperies, Blinds and Other Window Treatments* and 780 CMR: *The Massachusetts State Building Code*.

(b) Permit Required. A place of assembly or one for educational use shall not be maintained, operated or used as such without a Certificate of Inspection from the building code official.

(c) Posting of Occupant Load. Each place of assembly or education shall be posted with an approved legible sign in contrasting colors conspicuously located near the main exit from the room or space stating the number of occupants permitted within such space. The number of occupants permitted shall be determined by 780 CMR: *The Massachusetts State Building Code*. Assembly rooms or spaces which have multiple use capability shall be posted for all such uses. The owner shall be responsible for installing and maintaining such signs.

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- (d) Overcrowding. No person shall permit overcrowding or admittance of any person beyond the established posted occupant load of any place of assembly or education. The head of the fire department, upon finding overcrowded conditions or obstruction in aisles, passageways or other means of egress, or finding any condition which constitutes a hazard to life and safety shall cause the performance, presentation, spectacle or entertainment to be stopped until the area posted occupant load is re-established or the obstruction or hazardous condition is removed.
- (2) Decorative Material. Decorative materials shall conform to 527 CMR 21.00 and 780 CMR.
- (3) Motion Picture Screens. In places of assembly or education, a motion picture screen or screen masking shall not be used which will ignite and allow flame to spread over the surface when exposed to the test method test described in 527 CMR 21.00.
- (4) Means of Egress.
- (a) General. The operator or the person in charge of operation or use of any place of assembly or education shall check egress facilities before such building is occupied for any use, to determine compliance with the provisions of 527 CMR 10.17. If such inspection reveals that any element of the required means of egress is obstructed, inaccessible, locked, fastened or otherwise unsuited for immediate use, admittance to the building shall not be permitted until necessary corrective action has been completed.
- (b) Doors. An egress door shall not be locked, bolted or otherwise fastened or obstructed by any means, so that the door cannot be opened from the inside by the use of the ordinary door latch or knob or by pressure on the door or on a panic release device except as provided in 780 CMR.
- (c) Aisles. In each room where chairs, or tables and chairs, are used the arrangement shall be such as to provide for ready access by aisles to each egress door. Aisles leading directly to an egress door shall have not less than 44" clear width. When serving an occupant load of 50 or less, such required clear width shall not be less than 36". Aisles shall not be obstructed by chairs, tables or other objects.
- (d) Obstructions. A part of a stairway, whether interior or exterior, or of a hallway, corridor, vestibule, balcony or bridge leading to a stairway or exit shall not be used in any way that will obstruct or restrict its use as a means of egress or that will present a hazardous condition.
- (e) Signs and lighting. The signs and lighting of means of egress required for places of assembly or education shall be maintained in proper operating condition and be installed in accordance with 780 CMR.
- (5) Projection Rooms.
- (a) Refer to 780 CMR.
- (b) Miscellaneous equipment: A maximum of four flammable liquid containers that do not have a capacity greater than 16 ounces and are of a nonbreakable type shall be permitted in each projection room.

10.18: Matches

- (1) General.
- (a) Scope. The storage or handling of matches in quantities as indicated herein shall comply with the applicable requirements of 527 CMR 10.00 and the provisions of 527 CMR 10.18.
- (b) Permit required. A permit shall be obtained from the head of the fire department for the manufacture or storage of matches exceeding 25 cases in aggregate.
- (2) Fire Safety Requirements.
- (a) Wholesale storage. At wholesale establishments and wherever more than 25 cases of matches are stored, shipping containers containing matches shall be arranged in piles not exceeding 18' in height nor 25,000 cubic feet in volume. Such pile units shall be separated from each other and from other combustible material by a clear space of not less than four feet. Matches shall not be stored within ten feet of any exit, open stairway, elevator shaft opening or other vertical opening.

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527 CMR 38.00: MINIMUM STANDARDS FOR MOTION PICTURE AND TELEVISION PRODUCTION STUDIO SOUNDSTAGES, PRODUCTION FACILITIES, PRODUCTION LOCATIONS AND ACTIVITIES RELATING THERETO

Section

38.01: Adoption of NFPA 140 (2008 Edition) by Reference with Modifications  
38.02: Scope  
38.03: Purpose  
38.04: Additional Modifications to NFPA 140 (2008 Edition)

38.01: Adoption by Reference with Modifications

(1) 527 CMR 38.00 adopts and incorporates by reference National Fire Protection Association (NFPA) Standard 140 (2008 Edition) entitled: *Motion Picture and Television Production Studio Soundstages, Production Facilities, Production Locations and Activities*, with modifications as noted in 527 CMR 38.00.

(2) In the event of a conflict between the provisions of 527 CMR 38.00, and any other provision of 527 CMR, the standard that requires the greater level of safety shall prevail.

38.02: Scope

Delete section 1.1 of NFPR 140 (2008) Edition and insert in place thereof the following:

1.1 Scope. This Standard establishes minimum requirements for motion picture and television production studio soundstages, production facilities, production locations and activities relating thereto, in order to reduce the incidents of fire and explosion. The provisions here are in addition to the related provisions of the Massachusetts State Building Code, 780 CMR, including, but not limited to 780 CMR 428.00.

38.03: Purpose

Delete section 1.2 of NFPA 140 (2008) Edition and insert in place thereof the following:

1.2 Purpose. The provisions of 527 CMR 38.00 establish minimum standards for motion picture and television production studio soundstages, production facilities, production locations and activities relating thereto, in order to reduce the incidents of fire and explosion. The provisions of 527 CMR 38.00 are in addition to the related provisions of the Massachusetts State Building Code, 780 CMR, including, but not limited to 780 CMR 428.00.

38.04: Additional Modifications to NFPA 140 (2008 Edition)

Additional modifications to NFPA 140 (2008 Edition) hereby incorporated in 527 CMR 38.00, shall be as follows:

3.2.2\* Authority Having Jurisdiction (AHJ). Head of the Fire Department or designee.

Add a new section 3.3.9

3.3 On-site Personnel. Cast, crew, vendors, contractors, and any other personnel servicing the production.

4.2 Delete this section in its entirety and insert in place thereof:

4.2 Permits. A permit shall be obtained for any of the following activities:

- (1) Use of pyrotechnic special effects (527 CMR 2.00 and 13.00).
- (2) Use of open flames (527 CMR 10.00).
- (3) Welding and cutting (527 CMR 39.04).
- (4) Storage and use of flammable or combustible liquids of gases (527 CMR 14.03).
- (5) Use of aircraft.

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38.04: continued

- (6) Presence of motor vehicles within a building.
- (7) Productions with live audiences.
- (8) Change of use or change of occupancy classification.
- (9) Storage and use of liquefied petroleum gases (527 CMR 6.08).

4.3.2 Delete this section and insert in place thereof:

4.3.2. 527 CMR 2.00 shall be used to regulate any pyrotechnic use.

4.3.3 Delete this section

4.3.3. 527 CMR 10.03 (6) shall be used to regulate any open flame use.

4.5.2 Delete this section and insert in place thereof:

4.5.2. Combustible drapes, drops, and any other similar combustible hanging or vertically placed material shall be in accordance with 527 CMR 21.00 and must be maintained in a flame-retardant condition.

4.6.1 Delete this section and insert in place thereof:

4.6.1. There shall be no smoking in any soundstage, production studio, or approved production facility unless allowed by NFPA 140 (2008 Edition) 4.6.2.

4.6.3 Delete this section and insert in place thereof:

4.6.3. The AHJ may prescribe areas outside of the building as designated smoking areas where hazardous materials are not present, and approved ashtrays or receivers are provided.

4.7.1 Delete this section and insert in place thereof:

4.7.1. Approved production facilities and soundstages shall be designed, constructed or altered to sustain all collateral dead loads and other loads specified in 780 CMR.

4.7.2 Delete this section and insert in place thereof:

4.7.2. Where the anticipated loads exceed those specified in 780 CMR for the purpose of suspending sets, ceilings, backings, and other heavy production set pieces, the building shall be designed and constructed for the additional loads.

4.8.1 Delete this section and insert in place thereof:

4.8.1. Electrical equipment shall be in accordance with 527 CMR 12.00: *The Massachusetts Electrical Code.*

4.9 Delete this section and insert in place thereof:

4.9 Fire Department Access. A minimum of 18' wide, unobstructed access roadway shall be provided within 50' of the building on all sides of the building. The access roadway shall be suitable to provide all weather access to the fire apparatus. The head of the local fire department shall approve the access roadway's placement, grade, turning radii and construction.

4.10. Sections .1, .2 and .3 delete these sections and insert in place thereof:

4.10 Means of Egress.

4.10.1. Means of Egress shall be in accordance with 780 CMR 428.0 and 527 CMR 10.03(13)

4.10.2. A clear unobstructed aisle height of 7' shall be maintained at all times. \*

4.10.3. Means of Egress shall be kept clear of obstructions and tripping hazards at all times.\*

38.04: continued

4.11 Delete this section and insert in place thereof

4.11 Fire Protection. Fire protection shall be provided in accordance with 780 CMR 428.0.

5.2 Add two new sections, section 5.2.1 and section 5.2.2 to read as follows:

5.2.1. Notification and Permits. Notification shall be made to the Head of the local fire department, or designee, on a form prescribed by the State Fire Marshal for production locations where 15 to 30 on-site personnel are present, providing permits are not required by Section 5.2.2 Sub-sections (2) - (10).

5.2.2. A permit shall be obtained for all production locations, except as defined in Section 5.2.1. Additionally, separate permits shall be required for any of the activities that follow:

- (1) Use of the site as a production location where more than 30 on-site personnel are present
- (2) Use of Pyrotechnic special effects (527 CMR 2.00 and 13.00)
- (3) Use of open flames (527 CMR 10.03 (6))
- (4) Welding and cutting (527 CMR 39.04)
- (5) Storage and use of flammable or combustible liquids of gasses (527 CMR 14.03)
- (6) Storage and use of liquefied petroleum gases (527 CMR 6.08)
- (7) Productions with a live audience
- (8) Use of Fog and Haze
- (9) Use of Aircraft
- (10) Presence of motor vehicles within a building.

5.3.2 Delete this section and insert in place thereof:

5.3.2. 527 CMR 2.00 shall be used to regulate any pyrotechnic use.

5.3.3 Delete this section and insert in place thereof:

5.3.3. 527 CMR 10.03(6) shall be used to regulate any open flame effect use.

5.6 Delete this section and insert in place thereof:

5.6. There shall be no smoking in any production location unless allowed by NFPA 140 (2008 Edition) 4.6.2.

5.6.3 Delete this section and insert in place thereof:

5.6.3. The AHJ may prescribe areas outside of the building as designated smoking areas where hazardous materials are not present, and approved ashtrays or receivers are provided.

5.7.1 Delete this section and insert in place thereof:

5.7.1. Sets, scenery, and other equipment shall not impact the structural integrity of existing buildings. Additional loads applied onto the building shall be in accordance with 780 CMR.

5.7.2 Delete

5.8.1 Delete this section and insert in place thereof:

5.8.1. Electrical power connections made to the site electrical service shall be in accordance with 527 CMR 12.00: *The Massachusetts Electrical Code.*

5.10\* Delete this section and insert in place thereof:

5.10\*. The production location shall be provided with the means of egress per 780 CMR.

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38.04: continued

5.11 Delete this section and insert in place thereof:

5.11 Fire Protection. Fire protection shall be provided in accordance with 780 CMR 428.0

6.2.1 Delete this section and insert in place thereof:

6.2.1. The storage and use of flammable and combustible liquids shall be in accordance with 527 CMR 6.00

6.2.2 Delete this section and insert in place thereof

6.2.2. The storage and use of liquefied petroleum gases shall be in accordance with 527 CMR 6.00

6.3 Delete this section and insert in place thereof:

6.3. All welding and cutting shall be in accordance with 527 CMR 39.00

REGULATORY AUTHORITY

527 CMR 38.00: M.G.L. c. 22D, § 4 and c. 148, §§ 9, 10, 28 and 39A.

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